CLAIMS

1 An antenna system for a station wagon type vehicle comprising an opening rear window (2) provided with a defrosting network (4) and a quarter panel window (3), the antenna system comprising:

- a first antenna comprising an aerial produced by screen printing on the rear window (2) and incorporating the defrosting network (4), the said aerial comprising two vertical lines (5) extending symmetrically with respect to the middle longitudinal vertical plane of the vehicle and being superimposed with the defrosting network,
- a second antenna comprising an aerial (15) produced by screen printing on the quarter panel window (3), and
- an electronic circuit located in the proximity of each of the aerials of the first and second antennas,

characterised in that the first antenna is an FM2 antenna intended to receive frequency modulated radio waves, in the band 76 MHz to 108 MHz, while the second antenna is a remote keyless entry antenna intended to receive waves having a frequency of 434 MHz or 315 MHz, and in that the aerial of the FM2 antenna has an earth line (8) having a length of the order of 530 mm and serving as an earth for the FM signal.

2 The antenna system as claimed in claim 1, characterised in that the defrosting network (4) has a U shape, the arms of which are directed upwards.

3 The antenna system as claimed in claim 1 or 2, characterised in that the FM2 antenna comprises a two-wire cable (11, 12) to pick up the FM signal received by its aerial and to transmit this signal to an electronic housing (9), the two-wire cable (11, 12) comprising an earth wire (12) connected to the earth line (8) and an FM signal wire (11) connected to the symmetrical lines (5).

4 The antenna system as claimed in claim 3, characterised in that the point of connection (14) of the earth wire (12) to the earth line (8) and the point of connection (10) of the FM signal wire (11) to the aerial of the FM2 antenna are placed in the immediate proximity

of each other.

5 The antenna system as claimed in any one of the preceding claims, characterised in that the aerial (15) of the remote keyless entry antenna is in the shape of an F.

6 The antenna system as claimed in claim 5, characterised in that the aerial (15) of the remote keyless entry antenna resonates at 434 MHz with an impedance of 50 ohms at its power supply point.

7 The antenna system as claimed in claim 6, characterised in that the aerial (15) of the remote keyless entry antenna has a screen printed earth line (16) of a length of the order of 150 mm and serving as an earth for the 434 MHz signal.

8 The antenna system as claimed in claim 7, characterised in that the remote keyless entry antenna comprises a two-wire cable (18, 19) to pick up the remote keyless entry signal received by its aerial (15) and to transmit this signal to the electronic housing (9), the two-wire cable (18, 19) comprising an earth wire (19) connected to the earth line (16) and a remote keyless entry signal wire (18) connected to the aerial (15) at the power supply point (17) thereof.

9 The antenna system as claimed in claim 8, characterised in that the point of connection (20) of the earth wire (19) to the earth line (16) and the power supply point (17) where the remote keyless entry signal wire (18) is connected to the aerial (15) areplaced in the immediate proximity of each other.